AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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computer readable medium external to the processor. The data control unit [306] 310 then decodes the instruction into one or more operations known as microinstructions. In one embodiment, logical source and destination registers for each microinstruction are general purpose registers. According to one embodiment of the present invention, the logical source or destination register for some of the microinstructions fetched from the firmware is one of the machine specific registers such as the MSR 314 for functional unit E 308e.

Please amend the paragraph beginning on page 7, line 1, as follows:

In one embodiment, the plurality of functional units 308a, 308b, 308c, 308d, 308e, 308f, 308g, 308h, [308I]308i, 308j, 308k represent the processor's internal hardware logic. In the example embodiment shown in FIG. 3, functional unit E 308e represents an L1 instruction cache; functional unit F 308f represents is L1 data cache; functional unit H 308h represents an L2 cache; function unit I 308i represents a backside bus controller; and functional unit J 308j represents a front side bus controller. In one embodiment, one or more of the functional units 308a-308k of the processor 304 have an MSR 314 register associated with the functional unit. FIG. 3 includes an exploded view of functional unit E 308e for the L1 instruction cache. Associated with functional unit E 308e is decode logic 312 and one or more MSR registers 314. The decode logic 312 determines the MSR address of an instruction on the CRAB 306. Functional unit E 308e also contains one or more MSRs which are described in more detail by reference to FIG. 4.

Please amend the paragraph beginning on page 13, line 3, as follows:

Some embodiments of the invention include a computer system comprising a bus, a processor and a computer readable medium external to the processor. The computer readable medium is coupled to the processor by the bus and [the computer readable medium to store] stores instructions to implement microcode functions. Some other embodiments of the invention include a method of using firmware as microcode. The method comprises storing programmed code in firmware and executing the programmed code. The method further comprises updating one or more registers associated with a logic unit on the processor in response to the execution of the programmed code and controlling one or more functions of the logic unit on the processor